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ABSTRACT

This description of the development of the Education Resources Information Center (ERIC) compact disc by two companies, SilverPlatter and ORI, Inc., provides background information on ERIC and the ERIC database, discusses reasons for choosing to put the ERIC database on compact discs, and describes the formulation of an ERIC CD-ROM team as part of the development process. A review of steps along the way in the development of a CD-ROM version of the ERIC database includes discussions of agreements and contracts; division of labor; marketing information/surveys; product design; conversion/inversion specifications; retrieval system capabilities; alpha test sites; news releases, flyers, letters, status reports, and order forms; publicity (articles, conference exhibits, advertising); and documentation and user manuals. The following information is appended: (1) ORI/SilverPlatter Division of Responsibility; (2) ERIC Database Conversion/Inversion Specifications; (3) Search Features--Comparison of ERIC on SilverPlatter with DIALOG 2; (4) Projected Retrieval System Improvements; (5) SilverPlatter order form and subscription agreement; (6) SilverPlatter pricing information; (7) Resources in Education (RIE) Sample Record; (8) listing of ERIC Clearinghouses; and (9) ERIC Fact Sheet. (KM)

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DISTRIBUTING THE ERIC DATABASE
ON SILVERPLATTER COMPACT DISC
--A BRIEF CASE HISTORY

ONLINE '86 Conference
Chicago, Illinois
November 5, 1986

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Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
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Distributing The ERIC Database
On SilverPlatter Compact Disc
--A Brief Case History

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Preamble: When I was asked to give this talk, I was asked to give a case history. I notice now that Track 2 (yesterday's track) is the case history track. Track 3 (today's track) is entitled "CD-ROM Impact on Database Suppliers and Users". Well, in what I've prepared, the emphasis is on the "case history" side and not the "impact" side, but hopefully you'll find a bit of both sides in what I'm about to say.

I. Introduction

You may have heard the name "ERIC" before, but if past experience is any guide, you probably don't know a lot about how ERIC is structured and how it works.

In order to give you the "ERIC on Compact Disc" case history, it will be necessary to first give you a bit of background about ERIC, the ERIC database, what ERIC is trying to do, and how compact discs fit into ERIC's mission and objectives.

II. Background

A. The Educational Resources Information Center (ERIC)

ERIC is an acronym standing for Educational Resources Information Center. ERIC is an information system sponsored by the Office of Educational Research and Improvement (OERI) within the U.S. Department of Education. OERI is the new (as of October 1985) name for the old National Institute of Education (NIE).

ERIC was begun in 1966 and is enjoying its twentieth birthday this month (i.e., November 1986). It started in the old Office of Education (OE), moved to NIE when that was formed in 1974, and now, hopefully, will be a cornerstone of the new OERI, as that unit attempts to refurbish the image of educational research.

Organizationally, ERIC is a decentralized system. It is comprised of a small central unit within OERI known as "Central ERIC". This unit is composed of less than 10 people, responsible for funding, setting policy, and monitoring the performance of a group of contractors and other arrangements that accomplish the work of ERIC.

These contractors are made up of a set of sixteen (16) Clearinghouses, each responsible for a major segment of the field of education, and two (2) for-profit contractors that operate the central editorial and database management facility and the central micrographics and document delivery facility, respectively.

The Clearinghouses are each located at a university or professional association that has a natural interest in the particular segment of the field of education for which they are responsible. For example, the ERIC Clearinghouse on Handicapped and Gifted Children is located at the Council for Exceptional Children (CEC); the ERIC Clearinghouse on Languages and Linguistics is located at the Center for

Applied Linguistics; the ERIC Clearinghouse on Reading and Communication Skills is located at the National Council of Teachers of English; and so on. Each Clearinghouse is responsible for gathering together the documents and journal articles that deal with topics in their area of coverage. They are also responsible for processing this literature for the ERIC database. By processing is meant cataloging, indexing, abstracting, and keying for data entry.

When this aspect of ERIC Clearinghouse work has been completed, the data and the documents are sent to the ERIC Processing and Reference Facility, a centralized editorial and database management facility. The data are transmitted online; the documents are mailed.

The ERIC Facility is operated on contract by ORI, Inc. The ERIC Facility edits the data for consistency and conformance to various standards and guidelines, processes some of the data through computerized authority list checks, and, in general, assembles the data for publication in various forms and for dissemination in machine-readable form and online. It is from the Facility that the tapes come that result in ERIC's two monthly abstract journals. It is from the Facility that the data flows to the online vendors: DIALOG, BRS, SDC. The Facility maintains the Thesaurus of ERIC Descriptors, the Identifier Authority List, the ERIC Processing Manual, and serves as a general scheduler and coordinator of the decentralized operation.

When the ERIC Facility is through with any given month's worth of documents (about 1,000 documents), it forwards these documents (together with the final database record) to the ERIC Document Reproduction Service (EDRS), operated on contract by Computer Microfilm Corporation (CMC). EDRS prepares microfiche for each of the documents and distributes them to some 750 subscribers. EDRS also processes all on-demand orders for ERIC documents on microfiche or in reproduced paper copy.

Other organizations that play a role in the ERIC system are GPO, which publishes the ERIC abstract journal Resources in Education (RIE), Oryx Press, which publishes the ERIC abstract journal Current Index to Journals in Education (CIJE), and the online vendors, DIALOG, BRS, and SDC, who offer the public online access to the ERIC database. This last group of organizations are not ERIC contractors. They help to disseminate the ERIC data for whatever they can make in the process.

B. The ERIC Database

The various components of the ERIC system working in concert, produce about 20,000 journal article bibliographic citations a year and about 15,000 document bibliographic citations a year. The 20,000 journal article records are announced in the monthly abstract journal Current Index to Journals in Education (known as CIJE). The 15,000 document records are announced in the monthly abstract journal Resources in Education (known as RIE). These two files together make up what is called the ERIC database.

Through 1985, the database contained 323,036 CIJE records and 253,126 RIE records, for a grand total of 576,162 records. All of these records have been announced in printed abstract journals, all are up on the online systems and can be accessed by terminal, and in some 98% of the cases the full text documents on which the records are based are available to users on microfiche.

The document records, containing as they do full abstracts, are about 1,800 characters in length. The journal article records, containing only 50-word annotations, are about 500 characters in length.

Through 1985, the ERIC database contained a total of approximately 618,000,000 characters and is growing at a rate of approximately 36,000,000 characters a year.

ERIC is, in effect, the national bibliographic database for the field of education. It doesn't handle hardback books or non-print materials, but it handles most everything else. It is one of the most popular databases (if online activity is the measure), ranking fourth behind LEXIS, CAS, and MEDLINE. It appears to be the most popular of the various social science databases, logging about three times as much online usage as the second place Psychological Abstracts (PsycLit).

C. Distribution/Dissemination of the ERIC Database

From the very beginning, ERIC's mandate has been to disseminate its data as widely as possible and at the lowest possible price to the user. This has led ERIC to try a wide variety of output products: abstract journals, microfiche, online access, magnetic tapes, specialized bibliographies and information analysis publications, microcomputer floppy discs, etc. This has also led ERIC to work for the lowest possible price to

the public. Resources in Education costs only \$56 a year, a fraction of what most abstract journals cost. The EDRS microfiche contract is awarded on the basis of lowest price to the public and its current price of 78 cents per microfiche title is far and away the lowest to be found anywhere. ERIC deliberately does not require a royalty from the online vendors in order to keep the ERIC price to the online user at a rock bottom low.

The theory is that the ERIC data are gathered in the first place for the general good and for the improvement of the educational process so central to this society. These data must be distributed widely in order to have an effect on the educational process, in order to have an effect on what goes on in the classroom and other educational situations. Furthermore, since the educational community is not a particularly well-to-do community, it is important to keep ERIC's prices low in order to foster the broad dissemination that is so desirable and so critical to ERIC making a difference.

For these reasons, ERIC is widely described as a public domain database whose use in as many ways as people can conceive of is both permitted and encouraged.

III. Why Compact Disc for ERIC?

With the context now established, it is not difficult to see why ERIC, or those working for ERIC, would be interested in putting ERIC on compact disc.

A. To Accomplish ERIC's Dissemination Mandate

Such a move would obviously help to accomplish ERIC's basic mandate of scattering its data far and wide.

B. To Give ERIC's Users the Benefits of Compact Disc Technology

As a totally self-contained system, it would be applicable to those situations where telecommunications were non-existent, difficult, or expensive. As a stand-alone system, totally under the control of the user who obtains it, it would also be a fixed cost method, permitting uncontrolled and unlimited use for the known, budgetable subscription amount.

Interactivity and browsing in online files has, in general, been inhibited in recent years with the increasing connect time and telecommunications charges that go with overall increased activity. Intermediaries tend to advise users to strategize offline and then simply run the search online and get off as quickly as possible -- a kind of "instant batch" search. The CD-ROM systems, where the meter is not constantly running, so to speak, promise to return interactivity and browsing to the consumer's search scene.

C. To Keep ERIC Up-to-Date With Respect to New Technology

Within its limited resources, ERIC tries to keep relatively up-to-date with the technology. ERIC uses state-of-the-art photocomposition technology for its abstract journals. It employs advanced step-and-repeat cameras and blowback copiers in its micrographics operations. It takes advantage of the inventiveness of the online vendors. It has interconnected the Clearinghouses with an electronic mail system. It is encouraging the rapid proliferation of microcomputer technology throughout the Clearinghouse network. Many developments are promoted by an internal ERIC Technology Committee. The ERIC Technology Committee focused on CD-ROM about two years ago and encouraged ERIC to move in that direction. The venture that ORI is making, jointly with SilverPlatter, is partly a response to that encouragement.

D. To Enhance ORI's Reputation and Role as a Technical Advisor to ERIC

In addition to operating the ERIC Facility, ORI acts as a technical advisor to Central ERIC on matters within its skill areas. ORI has, for example, graduated ERIC through several data entry systems over the years at the appropriate historical junctures on the way to the present direct online input system. ORI has moved ERIC to new and more advanced photocomposition systems and devices as the need arose. ORI established the current electronic mail system used by the Clearinghouses. ORI has helped ERIC develop new authority lists, new products, new forms, new procedures, etc. ORI has helped ERIC distribute its data to the public via magnetic tape for several years on a no-cost-to-the-Government and least-cost-to-the-public basis.

Distributing ERIC data to the public via CD-ROM is in a way a natural continuation of ORI's role as distributor of the ERIC data on magnetic tape and its role as a technical advisor helping ERIC to keep up with technological advances. ORI wants ERIC to regard it as able to do these things and, therefore, it seemed important for ORI to seize the initiative provided by CD-ROM rather than to let some other organization seize it.

E. To Make a Profit

And lastly and most obviously, it looked like there was money to be made in CD-ROM. ORI was the most experienced organization around as far as the ERIC database and its users went, so why shouldn't ORI try to capitalize on that expertise and know-how.

IV. Formulating an ERIC CD-ROM Team

Once the decision was made to get into the CD-ROM business, the next question was "with whom?". ORI did not have internally the expertise for creating such discs and it was becoming rapidly apparent that a lot of organizations had seen CD-ROM coming and had gone ahead and generated this very expertise.

We were beginning to be visited and courted by such organizations and we began to realize that not every group was a suitable partner for ORI.

There were those who simply wanted to act as a service bureau. Give them a tape and \$10,000 and they would give you back a box full of compact discs. They wanted to be completely in the background, not involved in the marketing, sales, troubleshooting, equipment, user services, etc. And they wanted their money up front.

There were those who were willing to do more in the way of a partnership, but who wanted a guarantee of a certain number of subscribers in order to stay in the business. Either their dreams were too grandiose or their willingness to stay what we guessed was a long course was questionable.

There were those who wanted to simply get the ERIC data and go it alone. They wanted ORI to consult for them, but not to get involved with them in a revenue-sharing partnership.

There were other questions to be answered as well: Was the retrieval system offered adequate? Was the company (or the project) capitalized sufficiently to stay the course? Was the development effort far enough along so that actual products would not be too far away?

We talked with several groups, but it wasn't until we talked with SilverPlatter that we felt we had found a philosophy that fit with our own.

SilverPlatter was interested in developing a service that would offer a stable of databases all accessible by the same basic retrieval package. The databases they were signing were predominantly (though not entirely) in the social sciences, so users might well be interested in multiple subscriptions. SilverPlatter didn't insist on money up front. They were willing to wait for the subscription revenues to start flowing. They were interested in a partnership arrangement where the information provider provided the expertise on the database and on the marketplace and SilverPlatter provided the expertise on the CD-ROM hardware and conversion process and the retrieval software designed for the CD-ROM environment. They were willing to get involved in regular customer support and hotline activities based on this same division of expertise.

Also, very importantly, SilverPlatter was receptive and even eager to modify its software in order to improve its capabilities and to continue to modify it as new improvements were conceived of or suggested by the users. We regarded this last point as crucial, as we were not willing to go to market with a system that we couldn't be proud of. The SilverPlatter retrieval software can do 90+% of the things the major mainframe-based online systems can do and the percentage is getting better all the time.

The timing was also right. SilverPlatter walked in the door at a time when ORI felt that it needed to make a move or risk falling behind certain vigorous entrepreneurs that were out scouting around for databases. SilverPlatter, in turn, needed a large "name" database to headline its U.S. marketing efforts and to serve as a nucleus around which other databases might gather.

All these factors converged and ORI and SilverPlatter signed a preliminary agreement on January 1985 and began working together immediately.

V. Steps Along the Way

A. Agreements and Contracts

The first paper signed jointly by ORI and SilverPlatter was simply an agreement to get together, a letter of intent, as it were. The actual contract took much longer to negotiate and had to cover a multitude of matters such as: the division of responsibilities, the product design, pricing, the retrieval system specifications, conversion specifications, alpha test sites, schedules, penalties and what if's, and the division of revenues. The final contract was finalized only a few months ago. While all this was going on, ORI and SilverPlatter, of necessity, continued to work together to bring the product to market.

B. Division of Labor

One of the first matters to be settled was the Division of Labor, i.e., our respective areas of responsibility. After some discussion, this was documented as you see it in Figure 1.

ORI was responsible for database generation and provision and all aspects of accounting (order processing, customer records, billing (and follow-up), disbursements, etc.). ORI and SilverPlatter together were jointly responsible for advertising and marketing. SilverPlatter was responsible for software provision and maintenance, disc production, equipment, and order fulfillment (in the sense of physically distributing both discs and equipment).

C. Market Information/Surveys

Since ORI had the records of several years of selling ERIC data on magnetic tapes and had also done several directories for ERIC of organizations maintaining ERIC microfiche collections or providing ERIC search services, it was early on decided that ORI should have responsibility for gathering information from the marketplace concerning how the product should be configured, how it should be updated, and what kinds of prices the market would bear.

Figure 2 illustrates the survey form that ORI developed and mailed to about 1,800 organizations regarded as the market "universe", (or at least the best handle we could get on it at the time). As you can see, there were questions about subdividing the database, about frequency of update, about pricing, about search capabilities, and about various other matters.

We received back about 180 responses. I understand that a 10% return is considered very good for this kind of thing. We also put out a news release. We publicized what we were doing amongst the ERIC family and let them spread the word further. We spoke and exhibited at various conferences (e.g., ALA, IIA, NFAIS, ACRL, SLA, National Online). We wrote articles for information periodicals (e.g., Library HiTech)..

The 180 responses were analyzed in some detail. Every answer to every survey question was keyed into a SAS program and sorted, displayed, and statistically analyzed. I can't provide you with the results here, but the data constituted some fairly substantial information about the marketplace and guided many of our later discussions and decisions.

D. Product Design/Configuration

Product design discussions concentrated on how to subdivide the database. It wouldn't all fit on one disc. We had two kinds of files. Just exactly how should we configure it?

After much debate, we decided to create a single current or contemporary disc that would contain both the RIE and CIJE files for the past three full years plus the year in progress, i.e., 1983-1985 plus 1986 as it was built. Such a disc could be updated quarterly without re-doing massive amounts of data each time.

Such a disc could hold new data up through 1990, before running out of space. Such a disc, by containing both RIE and CIJE, would be convenient for the users and was responsive to the survey results.

A current disc was a "must". Many searches are restricted to the last five years in order to keep the output volume within convenient dimensions. Very few searchers search only material older than five years. We felt that a current disc would attract any real potential subscribers. Then, after we had demonstrated the size of the market, generated some revenues, and acquired some real life feedback, we could offer the older data (1966-1982) in the form of "archival" discs -- one-time purchase items that once created would not require subsequent update unless there were some major action affecting the entire database both old and new. The substantial expense of the archival discs would not be incurred unless the overall market materialized and if the users subscribing to the current disc indicated they would buy the ERIC backfile.

Just about every database generator is partitioning or segmenting their database in some clever way for the CD-ROM push. This was our particular way. Everybody is being a little bit cautious. Nobody wants to hurt their print product sales or, even more importantly, hurt their revenues from online, at least not until they have established a proven alternative revenue flow.

E. Conversion/Inversion Specifications

SilverPlatter and ORI got together at a stage where SilverPlatter had already invested nearly two years in the development of a CD-ROM retrieval system and related file conversion/inversion software. It is too bad that we didn't get together at the beginning of those two years. A lot of time has been spent modifying and tuning the file conversion software so that the resultant CD-ROM database can provide the kind of retrieval we believe our users want and need.

Figure 3 is a table entitled "ERIC Database Conversion/Inversion Specifications". This is the latest version of what is going to happen to the ERIC file when it is put on SilverPlatter's CD-ROM discs. It is difficult to explain why the decisions represented by such a table should take so much time to achieve, but we seemed to debate virtually every field. The software

had not always provided for the exact situations encountered in the ERIC database. We asked for changes. Some were accepted and some were resisted, at least initially. We will not end up with everything we want, but we will get most of what we want and all the really important items.

An example of a major change that occurred as we talked is the gradual shift from one huge inverted index into which the contents of all fields were dumped, to one large index supplemented by separate indexes for selected fields. Certain fields containing numeric data and other fields based on limited authority lists (e.g., Languages) we did not feel it was appropriate to dump into a large general basic index. SilverPlatter had to be convinced, but they remained open-minded about it and began to see the value of the approach we recommended, especially as they gained experience with retrieval from discs loaded to full capacity.

An example of a change that will be made, but that hasn't been made yet is the selective inversion of subfields in a field that contains multiple subfields. For example, we want to retrieve on the journal name in subfield 1 of the Journal Citation field, but not on the complex, largely numerical citation data in subfield 2. Unfortunately, the only way right now we can keep the numerical citation data out of the inverted file is via the stopword list. This matter won't affect the user significantly, but it will affect the size and content of the inverted file.

These are just two examples of the problem of marrying a database to a retrieval system when the two come together already full grown. As in any marriage, there were some adjustment problems.

F. Retrieval System Capabilities

The proprietary SilverPlatter retrieval system is a powerful system and will allow you to do just about any kind of search that you will want to do or that you could do on the online systems.

I am not going to get into all the retrieval capabilities in detail. Suffice it to say that the SilverPlatter software has the standard Boolean operators: AND, OR, and NOT and it has the capability of handling parentheses and nested parentheses.

It has the textual operators: WITH (for words in the same field), NEAR (for words in the same sentence), and Near 1, Near 2, Near 3, etc., for specifying words next to each other and degrees of proximity, e.g., 1 word apart, within 2 words, within 3 words, etc. It can display all of the fields in a record or a user-defined subset of the fields.

It has right hand truncation. It has range searching in numeric-type fields such as Publication Year and Accession Numbering. It permits personalized output formats.

There are things it does that we don't like and hope to get removed. For example, it has inserted hyphens between words that it wants to treat as bound phrases (e.g., personal names, multi-word descriptors, journal names), which is alright, but it insists on displaying those same inserted hyphens in the output records. We want the hyphens required only as retrieval devices and not showing in the output. They weren't there originally and therefore shouldn't be let in to "mess up" the output records.

There are things it won't do that we wish it could. For example, we don't yet have the ERIC Thesaurus's detailed cross-reference structure integrated into the system in any way.

But in general we are satisfied. The history of the retrieval system has resembled the history of the database conversion. SilverPlatter has worked steadily with its information providers to adjust and improve their retrieval system until it is truly the kind of fast and sophisticated system that users are demanding these days.

Figure 4 consists of a lengthy list of retrieval systems features, indicating for each whether the feature is present in DIALOG 2 and in the SilverPlatter retrieval system. The features that DIALOG has that are identified as not available in the SilverPlatter system are: search saves, negative proximity, searching minor Descriptors only, multiple pre-selected output formats, word order specificity in proximity commands, sorting output by other than accession number. The search saving feature will be added in future releases. The other five features, which we feel are not frequently used options, will probably remain differences between

the two systems for the near term. The features that SilverPlatter has that are identified as not available in DIALOG 2 are: personalized output formats, paging backward in the Index, HELP screens. Left hand truncation is not currently available in either system.

G. Alpha Test Sites

Alpha Test sites are supposed to provide a real life user test of the product before final modifications are made and the product is delivered to the consumer. Alpha Test sites are supposed to find the final "bugs" so that they can be removed and to recommend the final needed improvements so that they can be inserted.

We would like to have had numerous Alpha test sites scattered all over the country and encompassing every kind of institution. Practical considerations, however, dictated that we go with a small compact group of sites physically located so that we could get to them frequently, easily, and quickly from our respective corporate locations. ERIC had four Alpha test sites, all on the East Coast. These sites were provided the "current" disc and a data disc drive around the end of May 1986 (they already had the necessary IBM-PC and desirable printer) and were asked to use the system as much as possible during the summer months, feeding back reactions, comments, findings, problems, and any malfunctions to ORI/SilverPlatter as they occurred.

Alpha test feedback was then used to make final system adjustments in July 1986. The first production discs were distributed to charter subscribers on August 29, 1986.

H. News Releases, Flyers, Letters, Status Reports, Order Forms, Subscription Agreements

Are all part of the apparatus necessary to the process of bringing a product to market. ORI and SilverPlatter have worked on these jointly.

I. Publicity (Articles, Conference Exhibits, Advertising)

There have been only a couple of articles* specifically on SilverPlatter. We have exhibited at several conferences during 1985 and 1986. The 1986 conference schedule was provided to all the respondents to our marketing survey, in order to give them a chance to see the system exhibited. At these conferences there is either a general SilverPlatter booth or there is a SilverPlatter component to an information provider's booth. Advertising has been somewhat slow to get

started. There have only been a couple of magazine ads, in journals such as Library Journal. Advertising will increase in the future, but we think that most of the sales will come about not through mass advertising, but through direct contacts with the organizations we already know as components of the universe of potential subscribers.

J. Documentation and User Manuals

Documentation and User Manuals are, unfortunately, a bit behind schedule. SilverPlatter is responsible for the retrieval system documentation and this was ready first. ORI is responsible for the database documentation and is late in providing it. Fortunately, most of the prospective users are already fairly familiar with the ERIC database, making this lateness not a crucial factor in making use of ERIC on the CD-ROM system. The built-in tutorial and HELP screens compensate greatly for the lateness of printed documentation descriptive specifically of the database.

* Examples are: Library Hi Tech (v3 n4 1985, p.49-60)
Information Today (June 1986, p.23-26)

Closing Remarks

The previous remarks should give you a good idea of the steps SilverPlatter and ORI went through together in bringing an ERIC CD-ROM product to market. Perhaps I can, therefore, turn my attention for a moment to the question of the impact of this product on ERIC and on its users.

Because ERIC is a Government sponsored and subsidized database, the impact on it of CD-ROM will not be great. We have the luxury of being able to view CD-ROM as just the latest methodology for disseminating the data. The printed products will continue to fill an ecological niche. Online will continue to be the access mode of choice for thousands of organizations that do not search the database so heavily as to justify the not insignificant CD-ROM investment. Microfiche for the original documents will be around for many years to come before it is threatened by disc devices.

The impact on the users will be much greater. The users will be left alone at their CD-ROM stations, free to do anything they want, without fear of reprisals. We see a lot more people exposed to searching than ever before. We see users better able to take advantage of interactivity and browsability and eventually learning to search better because of the built-in HELP information. We see interfaces being built between CD-ROM systems and online systems, so that the user can go from one to the other easily. We see an explosion of use in the far corners of the world where online is still too expensive because of telecommunications costs.

Time will tell about all this, of course. For the moment, we are just trying to take advantage of a new technology.

In a recent article in Electronic Publishing and Bookselling (EPB), Ron Henderson cited five factors that determine whether a product is likely to be successful if delivered on CD-ROM technology. These five factors are:

1. Large Volume of Data
2. Stable Data Not Requiring Frequent Updates
3. Geographically Dispersed User Community
4. Most Users Have Microcomputers
5. Additional Processing Enhances the Value of the Data Delivered

ERIC statisfies all five of these factors and we are looking forward to a successful new information product that will help keep ERIC abreast of the truly exciting optical storage technology so in evidence at this conference.

ERIC on CD-ROM
Task List
ORI/SilverPlatter Division of Responsibility

		<u>Responsibility</u>		
		<u>ORI</u>	<u>SilverPlatter</u>	<u>Joint</u>
<u>A. Database Generation and Provision</u>				
• Database Generation and Maintenance(on tape)		X		
• Periodic Database Tapes to Disc			X	
• Production Operation				
<u>B. Software Provision and Maintenance</u>				
• Basic Retrieval Software			X	
• Periodic Software Enhancements			X	
<u>C. Disc Production</u>				
• Conversion and Inversion (pre-mastering)			X	
• Mastering			X	
• Copy Stamping			X	
<u>D. Equipment (Warehousing, Checking, Maintenance)</u>				
• Purchase Equipment			X	
• Maintain Inventory of Equipment			X	
• Check out Equipment Before Shipments			X	
• Equipment Maintenance (calls from field)			X	
• Disc Inventory			X	
<u>E. Advertising/Marketing</u>				
• Artwork for Logos, Disc Labels, Etc.				X
• Brochures, Flyers				X
• Mailings				X
• Advertisements in Journals				X
• Exhibits at Conferences				X
• Presentations at Conferences				X
• Demonstrations (including Requisite Equipment)				X
<u>F. Accounting</u>				
• Order Processing		X		
• Customer Records		X		
• Billing (and Follow-up)		X		
• Accounting/Books		X		
• Disbursements		X		
<u>G. Fulfillment</u>				
• Disc Distribution			X	
• Equipment Distribution			X	

	<u>Responsiblity</u>		
	<u>ORI</u>	<u>SilverPlatter</u>	<u>Joint</u>
<u>H. Customer Service</u>			
• Order Receipt	X		
• Hotline			
-- Searching/Database Problems	X		
-- Equipment Software Problems		X	
• Documentation			
-- System Documentation		X	
-- Search Manual			X
-- Equipment Documentation		X	

ERIC Database Conversion/Inversion Specifications

(Data Element Disposition Table)

Conversion/Inversion Specifications

ERIC Data Element	Mandatory/ Optional	Used in		Field ID	Tag	Basic Index	Indexing*		Discard	Display Only	Suppress Display
		RIE	CIJE				Numeric	"Limit"			
1. Sequence Code	M	X	X	0	--				X		
2. Add Date	M	X	X	1	--				X		
3. Change Date	M	X	X	2	--				X		
4. ERIC Accession Number	M	X	X	16	AN FI		X	X			X
5. Clearinghouse - Accession Number - Prefix Only	M	X	X	17	CHN CH		X	X			X
6. Other Accession Number	O	X	NA	18	--				X		
7. Publication Type - Name - Code Only	M	X	X	19	DT DTN	X	X				
8. Program Area	O	X	NA	20	--				X		
9. Publication Date	M	X	X	23	PY		X				
10. Title	M	X	X	26	TI	X					
11. Personal Author	O	X	X	27	AU	X					
12. Institution Code	O	X	NA	28	--				X		
13. Sponsoring Agency Code	O	X	NA	32	--				X		
14. Descriptors	M	X	X	35	DE DEM	X X					X
15. Identifiers	O	X	X	36	ID IDM	X X					X
16. EDRS Price	M	X	NA	37	PR					X	
17. Descriptive Note	O	X	X	38	NT					X	
18. Pagination (size)	M	X	NA	39	PG		X				
19. Level of Availability	M	X	NA	40	LV		X				
20. Issue (of abstract journal)	M	X	X	43	IS					X	

ERIC Database Conversion/Inversion Specifications

(Data Element Disposition Table)

Conversion/Inversion Specifications

ERIC Data Element	Mandatory/ Optional	Used in		Field ID	Tag	Basic Index	Indexing*		Discard	Display Only	Suppress Display
		RIE	CIJE				Numeric	"Limit"			
21. Abstract/Annotation	M	X	X	44	AB	X					
22. Report Number	O	X	NA	45	RN		X				
23. Contract Number	O	X	NA	46	CN		X				
24. Grant Number	O	X	NA	47	CN		X				
25. Project Number	O	X	NA	48	--				X		
26. Availability (outside ERIC)	O	X	X	49	AV					X	
27. Journal Citation	O	X	X	50	JN	X					
28. Target Audience	O	X	X	51	TA			X			
29. Language	M	X	X	76	LA			X			
30. Geographic Source (Country of Publication)	O	X	NA	77	CP			X			
31. Governmental Level	O	X	NA	78	GL			X			
32. Institution Name (Corporate Source)	O	X	NA	128	CS	X					
33. Sponsoring Agency Name	O	X	NA	132	SP	X					

NOTES

4. Entire field converts to AN; Alpha prefix converts to FI = File.
7. Convert code to text; index text; index code. DT = Document Type
9. Convert only last two digits (year); add leading "19". PY = Publication Year
11. Insert hyphens between elements of name.
14. Insert hyphens between words of Descriptor; retain asterisks. For DEM = Descriptors (Major), convert only terms with asterisks.
15. Insert hyphens between words of Identifier. Retain asterisks. For IDM = Identifiers (Major), convert only terms with asterisks.
18. Convert first subfield only; Discard number of microfiche.
27. Insert hyphens between words in journal name; Index name only (as a bound phrase); Stoplist numerics.
28. Insert hyphens in multi-word terms.
30. CP = Country of Publication
32. CS = Corporate Source

* * * * *

"Basic Index" indicates that the entire content of the field (words and numbers, except for those on the Stoplist), are indexed in a general alphanumeric "Glossary".

"Numeric" indicates that the content of the field is primarily numeric and is indexed in a separate inverted file index and not in the general "Glossary". Fields indicating numeric indexing are known in the documentation as "value parameters" and are accessible only by specifying the particular field either for a specific value (AV = 2) or a range of values (PG = 5:100 or PG 5).

"Limit" indicates that the content of the field is limited to a narrow range of alphabetic characters (usually from an Authority List) and these have been indexed in a separate inverted file index and not in the general "Glossary". Such data can be searched only by specifying the particular field, e.g., "GL = Federal".

Search Features
Comparison of ERIC on SilverPlatter
With DIALOG 2

Search Feature	Silver Platter	DIALOG 2	NOTES
1. Direct access to specific record	Yes	Yes	
2. Thesaurus online	No	Yes	DIALOG excludes generic structure and truncates scope note. SilverPlatter considering.
3. Boolean operators (AND, OR, NOT)	Yes	Yes	
4. Parentheses (basic and nested)	Yes	Yes	
5. Intermediate results (Postings for each term in search)	Yes	Yes	DIALOG'S "Superselect"
6. Search saves (retention of search strategy indefinitely)	No	Yes	SilverPlatter to add
7. Output formats (show/display, type, print) Pre-Selected Personalized	2 Yes	8 No	Two different approaches
8. Sorting (by other than accession number)	No	Yes	DIALOG offers: author, title, institution, journal name
9. Reverse chronological output (i.e., most recent material first)	Yes	Yes	
10. Show/display, type, print any established set (by #)	Yes	Yes	
11. Scrolling backward Basic index Records retrieved	No Yes	No Yes	SilverPlatter to add
12. Truncation • Right hand Open (Any characters after stem) Restricted (X characters after stem) • Left hand • Internal	Yes No No No	Yes Yes No Yes	SilverPlatter considering SilverPlatter to add
13. Range searching (on numeric fields) • Accession numbers • Publication year • Pagination	Yes Yes Yes	Yes Yes No	
14. Searching on Basic Index term by reference to term # only (without rekeying term)	No	Yes	SilverPlatter to add
15. Display only fields (i.e., certain fields not indexed)	Yes	Yes	SilverPlatter: Availability (outside ERIC), EDRS price, Issue (of abstract journal). DIALOG: Availability (outside ERIC), EDRS level of availability, Pagination.

Search Feature	Silver Platter	DIALOG 2	Notes
16. Limiting			
RIE subfile	Yes	Yes	SilverPlatter can search on all descriptors (major or minor) or only on major descriptors, but not only on minor. However, same effect can be achieved by set manipulation (all hits - major hits = minor hits)
CIJE subfile	Yes	Yes	
Major descriptors/identifiers	Yes	Yes	
Minor descriptors/identifiers	No	Yes	
Publication year	Yes	Yes	EDRS availability /nonavailability searchable on DIALOG by selecting appropriate word in EDRS price field, e.g., "AV=PRICE", "AV=DOCUMENT", respectively
Accession number	Yes	Yes	
Level of availability (1,2,3)	Yes	No	
Document type number	Yes	Yes	
ERIC Clearinghouse (prefix)	Yes	Yes	
Language (of document)	Yes	Yes	
Clearinghouse accession number	Yes	Yes	
Geographic source (country/state of publication)	Yes	Yes	
Target audience	Yes	Yes	
Government document (federal, state, local)	Yes	Yes	
Pagination	Yes	No	
Report number	Yes	Yes	
Contract/grant number	Yes	Yes	
17. Proximity Searches			
Adjacent			
In any order	Yes	Yes	
In order specified	No	Yes	
Within X words of each other (degree of proximity)	Yes	Yes	
In same record	Yes	Yes	
In same field (in same record)	Yes	Yes	
In same descriptor (in same record)	Yes	Yes	
Negative proximity (not with or not near)	No	Yes	
18. Miscellaneous Search Options			
Searching on "stopwords" in descriptors	No	Yes	SilverPlatter does not index stopwords in any field. "Teachers" but not "Art Teachers"
Searching on single word descriptors/identifiers only (and not as part of multi-word term)	Yes	Yes	
Using set numbers as search terms	Yes	Yes	e.g., 1 and 3
Mixing set numbers and alphabetic search terms	Yes	Yes	e.g., 5 and DOG
Specifying multiple fields in one step	No	Yes	SilverPlatter to add. e.g., Dog in TI, AB, DE

ERIC ON SILVERPLATTER
PROJECTED RETRIEVAL SYSTEM IMPROVEMENTS

Release 1.2 (February 1987)

- Downloading search output (e.g., to floppy disc)
- Saving search strategy temporarily
- Driver program covering Philips CD-ROM drive
- QUIT command to get out of retrieval program quickly and easily and into DOS (without rebooting)

Release 1.3 (Summer 1987)

- Going directly from entries in INDEX to searching via FIND command without re-keying entries
- SCSI interface for all vendor supplied CD-ROM drives
- Conformance to ANSI standard for CD-ROM data layout
- "Page Up" capability within both SHOW and INDEX commands
- Range searching in fields that are not purely numeric (e.g., ED/EJ field)
- Range searching made much faster

Future (Unscheduled)

- Saving search strategies permanently
- Multiplatter
- New HELP subsystem (more flexibility in going back and forth between various HELP screens)
- Redesign of SHOW and PRINT commands to make them more user friendly (these are currently the hardest for the user to understand)
- Left hand (prefix) truncation
- Middle (infix) truncation
- Automatic right hand (suffix) truncation (possibly)
- Thesaurus (full cross-reference structure) on disc

- Library holdings (recording which items in database are in holdings)
- "Seamless" interface from CD-ROM searching to online searching (for more recent data)
- "Scrolling" through output at user's speed (rather than full next frame basis)
- Removal of "artificial" term-binding hyphens in output resumes
- Specifying (in one step) that a term must appear in any of a certain group of fields
- SHOWing and PRINTing other than just the last set in the sequence of search steps made
- Sorting of output in various ways (e.g., by title, by journal, by author, etc.)

SilverPlatterSM

INFORMATION SERVICES

ERIC Database on SilverPlatter Compact Disc Subscription and License Agreement

SHIPMENT IS EXPRESSLY MADE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN,
INCLUDING A LIMITATION OF WARRANTY AND A LIMITATION OF LIABILITY.

Based on the terms and conditions contained herein, we hereby order the ERIC Database(s) on SilverPlatter compact disc as indicated below:

ERIC CURRENT	PRICE	QUANTITY	TOTAL
☐ Quarterly Updates (1983-Present)	\$1,750/Yr	_____	\$ _____
☐ Annual Update (1983-Present)	\$ 950/Yr	_____	\$ _____
ERIC ARCHIVAL			
☐ RIE Files (1966-1982) 2 discs	\$ 1,500	_____	\$ _____
☐ CIJE Files (1969-1982) 1 disc	\$ 750	_____	\$ _____
☐ Both Archival Sets	\$ 2,000	_____	\$ _____
TOTAL			\$ _____

We understand that the ERIC Database(s) on SilverPlatter compact disc will be delivered to us within 30 days after payment of the purchase price plus shipping and handling charges and taxes and duties where required.

*Applicable shipping and handling charges and taxes and duties will be invoiced separately.

Purchaser Individual _____ Organization _____ (Check one)

Please enclose purchase price and return to:

Name: _____ Title: _____

ORI, Inc.

Organization: _____

Information Systems

Street: _____

4833 Rugby Avenue, Suite 301
Bethesda, Maryland 20814

City: _____ State _____ Zip _____

(301) 656-9723

Telephone _____ Extension: _____

_____ I would also like to order compact disc drive(s). Please send a sales agreement.

Date: _____ Authorized Signature: _____

1. Parties to Agreement

The parties to this Agreement are ORI, Inc. (the "Licensor") and the subscribing organization (the "Licensee").

2. The Product

The "Product" consists of the following: (1) the ERIC Database on SilverPlatter compact disc (current disc, 1983 — and/or archival discs for period prior to 1983); (2) the retrieval software (the "SilverPlatter Software") required to access the ERIC Database on the above discs; and (3) User Documentation on the ERIC Database and on the SilverPlatter Software.

3. The License

Licensor hereby grants to Licensee a non-transferable, non-exclusive license to use the Product according to the terms and conditions of this Agreement. Licensee shall use the Product only for internal or client-satisfaction purposes and shall not use the Product as a component of or a basis for a database prepared for commercial sale or distribution outside the Licensee's organization. The Licensee shall neither duplicate the Product nor alter the Product in any way; however, Licensee may make one back-up copy of the SilverPlatter Software contained in the Product.

4. Ownership of Database

The ERIC Database, as formatted by SilverPlatter for CD-ROM publishing, is owned by Licensor and no right to the ERIC Database or any part thereof in this form is conveyed to Licensee except the right to use it for the purpose of information retrieval in connection

with research. Licensee may view the Database or parts thereof on its terminal or may print selected items from the Database by computer (and may make limited copies of such printout). Portions of the Database in this form may be copied (downloaded) onto electronic/magnetic media (or other machine-readable form) solely for temporary use or storage. However, the Database in this form in its entirety (or in lengthy sequences, such as a year's worth of data) may not be downloaded by Licensee for sale or conveyance to any other person or organization. Licensee agrees to restrict use of the Product to employees and clients of the Licensee, and not to provide the Product in a systematic way to a third party.

5. Public Access Licensees

If a Licensee is a library, university, Government agency, or other non-profit entity providing public access to data/information, then, notwithstanding the restrictions of Sections 3, 4, and 7, it is specifically noted that Licensee may provide public access to the Database and may permit print copies of portions thereof to be made and retrieved by public users.

6. CD-ROM Disc Drives

The Product has been designed to operate on CD-ROM disc drives of types that have been tested by SilverPlatter Information, Inc. or in accordance with procedures established by SilverPlatter Information Inc. A list of such drives is available from Licensor. SilverPlatter represents and warrants that the Product will work on all drives ap-

pearing on the approved list. The Licensee is hereby notified that the Product may not work with other than an approved type of disc drive.

7. Software Protection

Licensee shall take all necessary action, whether by instruction, agreement, or otherwise, to restrict, control, and limit the use of and access to the SilverPlatter Software, documentation, and support materials to those permitted to have use and access by the terms of this Agreement, and to protect and secure these materials to prevent their being copied (except for the permissible single back-up copy).

8. Hotline

For one year from the date of first delivery of the Product, Licensor and/or SilverPlatter Information, Inc. will have consultants available by telephone during their normal business hours to answer questions and to provide assistance to Licensee. Any such assistance will be at Licensee's sole risk and Licensor and SilverPlatter Information, Inc. will not be liable for any loss or damage arising therefrom.

9. Product Updates

A. Database

Updates to the ERIC Database on SilverPlatter compact disc will be prepared quarterly. Updates will be issued to subscribers in the form of completely new current discs (1983-) with the information for the new quarter added. Updates will conform to the content of the ERIC abstract journals for the calendar periods: Jan-Mar; Apr-June; July-Sept; Oct-Dec.

The issuance of these discs will conform to the Government's schedule for preparation of the ERIC Database itself and will be dependent on that schedule. Updates will be shipped to Licensee within six weeks after the data becomes available from the Government.

Upon receipt of an updated disc, Licensee shall return the outdated disc within 30 days. Failure to return the outdated disc will result in the withholding of subsequent updated discs.

B. Software

The SilverPlatter Software is constantly being improved and expanded. New releases of the software will be provided to subscribers automatically as issued and will normally be a routine and free service provided to subscribers. However, should the software in the future undergo major expansion, SilverPlatter reserves the right to charge for second generation software. If and when such expansion occurs, Licensee shall have the right to purchase such software at the most advantageous prices offered.

10. Warranties

Licensor warrants and represents that it has the complete right to enter into this Agreement and to deliver the Product and the Database contained in the Product and the data in such Database. THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LICENSOR NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR LICENSOR ANY OTHER LIABILITY IN CONNECTION WITH THE LICENSING OF THE PRODUCT UNDER THIS AGREEMENT. ALTHOUGH CARE IS USED IN PREPARING THE DATABASE CONTAINED IN THE PRODUCT, LICENSOR DISCLAIMS ANY LIABILITY FOR THE ACCURACY THEREOF. LICENSOR AND THE SUPPLIERS OF THE DATABASE ASSUME NO RESPONSIBILITY WITH RESPECT TO LICENSEE'S USE OF THE PRODUCT AND SHALL NOT BE LIABLE FOR LOSS OF PROFITS, LOSS OF USE OR INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES, EVEN IF AWARE OF THE POSSIBILITY THEREOF. IN NO EVENT MAY EITHER LICENSOR OR LICENSEE BRING ANY CLAIM OR CAUSE OF ACTION AGAINST THE OTHER MORE THAN ONE YEAR AFTER SUCH CLAIM OR CAUSE OF ACTION ARISES. LICENSOR SHALL IN NO EVENT BE LIABLE FOR MORE THAN THE LICENSE FEE THEN PAID FOR THE PRODUCT (WHETHER LICENSOR'S LIABILITY ARISES FROM BREACH OF WARRANTY, BREACH OF ANY OBLIGATION ARISING FROM BREACH OF WARRANTY, OTHER BREACH OF THIS CONTRACT, OR OTHERWISE, AND WHETHER LIABILITY IS EXPRESSED IN CONTRACT OR IN TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY). SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF IMPLIED WARRANTIES OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO EVERY LICENSEE.

11. Termination of Subscription and License

A. Termination for Cause

If Licensee breaches any term of this Agreement, in addition to all other legal rights and remedies, Licensor may terminate the license granted hereunder. Upon termination of the license by Licensor for such cause, Licensee shall, unless otherwise agreed to in writing by Licensor, immediately return to Licensor the Product and all copies thereof, whether modified, or included with other data or software, and shall certify in writing to Licensor that Licensee has not retained the Product or copies thereof. The provisions of this contract that protect the proprietary rights of Licensor shall continue in force after termination.

B. Termination Due to Failure to Renew Subscription

If Licensee fails to renew their subscription for a current disc with updates, there are two options:

- (1) Return to Licensor the Product and all copies thereof, or
- (2) upon payment of an annual Maintenance Fee, retain the last current disc purchased and the last SilverPlatter software release provided, with the right to continue to search the last disc under the terms of this agreement. Lapsed subscribers who pay the annual Maintenance Fee, though no longer receiving updated discs, will continue to receive hotline support and periodic newsletter information.

12. Indemnification

Licensee agrees to indemnify and hold Licensor and SilverPlatter harmless from and against any and all claims from third parties (including without limitation for copyright infringement) arising out of or related to their use of the database/disc or software diskette.

13. Notices

All notices, consents, or other communications referred to herein shall be in writing, and shall be sent to the other party by first class mail addressed to that party at the address specified in this Agreement or to such alternative address as either party may furnish in writing to the other. Service of such notice, consent, or other communications hereunder shall be effective on the second day after the day of mailing, except as otherwise specified herein.

14. Assignment

This Agreement, and the license contained herein, may not be assigned by Licensee to a third party.

15. Enforcement

The parts of this Agreement pertaining to the SilverPlatter Software and Hotline services provided by SilverPlatter Information, Inc. will be enforced by SilverPlatter Information, Inc. SilverPlatter Information Inc. is not otherwise a party to this Agreement for any purpose.

The parts of this Agreement pertaining to the ERIC Database on SilverPlatter compact disc will be enforced by ORI, Inc.

16. Force Majeure

Licensor shall not be responsible for any failure to perform (or delay in performance), in whole or in part, due to unforeseen circumstances or circumstances beyond Licensor's control, including but not limited to acts of God, war, riot, embargoes, acts of civil or military authority, fire, flood, accidents, strikes, governmental action that would prevent the creation or distribution of the ERIC Database, and shortages of transportation facilities, fuel, labor, or materials.

17. Entire Understanding

This Agreement represents the entire understanding of the parties with respect to the subject matter hereof, and there are no representations, promises, warranties, covenants, or undertakings with respect thereto other than those contained in this Agreement. Without limiting the generality of the foregoing, it is expressly agreed that the terms of any purchase order issued by Licensee with respect to this Agreement or the Product shall not be applicable and that any acceptance of such purchase order by Licensor shall be for acknowledgment purposes only.

18. Illegality and Unenforceability

If a term or condition of this Agreement is found by a court or administrative agency to be invalid or unenforceable, the remaining terms and conditions hereof shall remain in full force and effect and shall be enforceable to the maximum extent permitted by law.

19. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the state of Maryland, without giving effect to the principles of conflict of law thereof.

SilverPlatter

INFORMATION SERVICES

SilverPlatter Pricing Information*

ERIC

Bibliographic database sponsored by the U.S. Department of Education, consisting of Resources in Education (RIE) file and the Current Index to Journals in Education (CIJE) file as prepared by the Information Systems Unit of ORI.

ERIC CURRENT Disc Annual Subscription (RIE & CIJE)

- ☐ Quarterly Update (1983 to present) \$1,750
- ☐ Annual Update (1983 to present) \$ 950

ERIC ARCHIVAL (Purchase only)

- ☐ RIE and CIJE 2 discs (1966-1982) \$2,000

PsycLIT

Journal citations on psychology and behavioral sciences from the PsycINFO department of the American Psychological Association. A 2 disc set with quarterly updates.

- ☐ PsycLIT 2 discs (1974-present) Annual Subscription \$4,995

A-V ONLINE

Database of audiovisual materials from the National Information Center for Educational Media (NICEM). Covers the complete database through June 1986. Updated annually.

- ☐ A-V ONLINE Annual subscription \$ 795

EMBASE

Summaries of the world literature in biomedicine and related disciplines produced by Elsevier Scientific Publishers. Pricing and update frequency to be announced.

EBSCO Serials Directory

Serials Directory containing references to over 117,000 periodicals published throughout the world. Annual update.

- ☐ EBSCO Annual subscription \$ 395

OSH-ROM

Occupational Health and Safety Information. Containing three complete databases from NIOSH (USA), HSELINE (UK), and CISDOC (UN). Updated semi-annually.

- ☐ OSH-ROM Annual subscription \$ 825

SOCIOFILE

Repository of the contents of the world's journals in sociology as compiled by Sociological Abstracts. Pricing and update frequency to be announced.

NOTE:

A \$250 per year software license fee will be charged for all purchases of retrospective files which do not include a subscription to the current disc.

Compact Disc Drives

PAYMENT IN ADVANCE

- ☐ 90 day warranty \$ 680
- ☐ 1 year warranty \$ 780

PURCHASE ORDER

- ☐ 90 day warranty \$ 750
- ☐ 1 year warranty \$ 850

2 YEAR LEASE/PURCHASE

- ☐ Prepaid or purchase order, 1 year warranty \$ 500/yr

NOTE:

A postage/handling charge of \$25 per drive will be added to all orders for CD-ROM disc drives.

What you need

Only an IBM PC, an XT or an AT with 512K memory (or IBM compatible). And, use an existing printer to output hardcopy of database information.

What you get with your SilverPlatter Subscription

- ☐ Powerful, user-friendly, SilverPlatter information retrieval software on a floppy disc
- ☐ Compact Disc (CD-ROM) with all the necessary information for the selected database
- ☐ On-line help screens for both the retrieval software and the database to be searched
- ☐ Comprehensive documentation for the first-time user as well as the experienced searcher
- ☐ Toll-free telephone support
- ☐ New releases and updates of the retrieval software
- ☐ A CD-ROM disc drive either included as an option in the subscription price or purchased as a separate item

For Ordering Information Contact

SilverPlatter
INFORMATION SERVICES

SilverPlatter Information, Inc.
37 Walnut Street
Wellesley Hills, MA 02181
617-239-0306

SAMPLE RIE RESUME

ERIC Accession Number—identification number sequentially assigned to documents as they are processed

Author(s).

Title.

Organization where document originated.

Date Published.

Contract or Grant Number.

Alternate source for obtaining document.

Language of Document—documents written entirely in English are not designated, although "English" is carried in their computerized records

Publication Type—broad categories indicating the form or organization of the document, as contrasted to its subject matter. The category name is followed by the category code.

ERIC Document Reproduction Service (EDRS) Availability—"MF" means microfiche; "PC" means reproduced paper copy. When described as "Document Not Available from EDRS," alternate sources are cited above. Prices are subject to change; for latest price code schedule see section on "How to Order ERIC Documents," in the most recent issue of RIE.

ED 654 321

Smith, John D. Johnson, Jane

Career Planning for Women.

Central Univ., Chicago, IL.

Spons Agency—National Inst. of Education (ED), Washington, DC.

Report No. — CU-2081-S

Pub Date — May 83

Contract— NIE-C-83-0001

Note — 129p.; Paper presented at the National Conference on Career Education (3rd, Chicago, IL, May 15-17, 1983).

Available from—Campus Bookstore, 123 College Ave., Chicago, IL 60690 (\$3.25).

Language—English, French

Pub Type—Speeches/Meeting Papers (150)

EDRS Price—MF01/PC06 Plus Postage.

Descriptors — Career Guidance, *Career Planning, Careers, *Demand Occupations, *Employed Women, *Employment Opportunities, Females, Labor Force, Labor Market, *Labor Needs, Occupational Aspiration, Occupations

Identifiers — Consortium of States, *National Occupational Competency Testing Institute

Women's opportunities for employment will be directly related to their level of skill and experience and also to the labor market demands through the remainder of the decade. The number of workers needed for all major occupational categories is expected to increase by about one-fifth between 1980 and 1990, but the growth rate will vary by occupational group. Professional and technical workers are expected to have the highest predicted rate (39 percent), followed by service workers (35 percent), clerical workers (26 percent), sales workers (24 percent), craft workers and supervisors (20 percent), managers and administrators (15 percent), and operatives (11 percent). This publication contains a brief discussion and employment information concerning occupations for professional and technical workers, managers and administrators, skilled trades, sales workers, clerical workers, and service workers. In order for women to take advantage of increased labor market demands, employer attitudes toward working women need to change and women must: (1) receive better career planning and counseling, (2) change their career aspirations, and (3) fully utilize the sources of legal protection and assistance that are available to them. (SB)

Clearinghouse Accession Number.

Sponsoring Agency—agency responsible for initiating, funding, and managing the research project

Report Number—assigned by originator.

Descriptive Note (pagination first).

Descriptors—subject terms found in the *Thesaurus of ERIC Descriptors* that characterize substantive content. Only the major terms, preceded by an asterisk, are printed in the subject index.

Identifiers—additional identifying terms not found in the *Thesaurus*. Only the major terms, preceded by an asterisk, are printed in the subject index.

Informative Abstract.

Abstractor's Initials.

ERIC CLEARINGHOUSES *(and Other Network Components)*

ERIC Ready Reference #6

Revised March 1986

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The exact number of Clearinghouses has fluctuated over time in response to the shifting needs of the educational community. There are currently 16 Clearinghouses. These are listed below, together with full addresses, telephone numbers, and brief scope notes describing the areas they cover.

ERIC Clearinghouse on Adult, Career, and Vocational Education (CE)

Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655; (800) 848-4815

All levels and settings of adult and continuing, career, and vocational/technical education. Adult education, from basic literacy training through professional skill upgrading. Career education, including career awareness, career decisionmaking, career development, career change, and experience-based education. Vocational and technical education, including new subprofessional fields, industrial arts, corrections education, employment and training programs, youth employment, work experience programs, education/business partnerships, entrepreneurship, adult retraining, and vocational rehabilitation for the handicapped.

ERIC Clearinghouse on Counseling and Personnel Services (CG)

University of Michigan
School of Education, Room 2108
610 East University Street
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings; theoretical development of counseling and guidance; personnel procedures such as testing and interviewing and the analysis and dissemination of the resultant information; group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

ERIC Clearinghouse on Educational Management (EA)

University of Oregon
1787 Agate Street
Eugene, Oregon 97403
Telephone: (503) 686-5043

The leadership, management, and structure of public and private educational organizations; practice and theory of administration; pre-service and inservice preparation of administrators; tasks and processes of administration; methods and varieties of organization and organizational change; and the social context of educational organizations.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

ERIC Clearinghouse on Elementary and Early Childhood Education (PS)

University of Illinois
College of Education
805 W. Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

The physical, cognitive, social, educational, and cultural development of children from birth through early adolescence; prenatal factors; parental behavior factors; learning theory research and practice related to the development of young children, including the preparation of teachers for this educational level; educational programs and community services for children; and theoretical and philosophical issues pertaining to children's development and education.

ERIC Clearinghouse on Handicapped and Gifted Children (EC)

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

All aspects of the education and development of the handicapped and gifted, including prevention, identification and assessment, intervention, and enrichment, both in special settings and within the mainstream.

ERIC Clearinghouse on Higher Education (HE)

George Washington University
One Dupont Circle, N.W., Suite 630
Washington, D.C. 20036
Telephone: (202) 296-2597

Topics relating to college and university conditions, problems, programs, and students. Curricular and instructional programs, and institutional research at the college or university level. Federal programs, professional education (medicine, law, etc.), professional continuing education, collegiate computer-assisted learning and management, graduate education, university extension programs, teaching-learning, legal issues and legislation, planning, governance, finance, evaluation, interinstitutional arrangements, management of institutions of higher education, and business or industry educational programs leading to a degree.

ERIC Clearinghouse on Information Resources (IR)

Syracuse University
School of Education
Huntington Hall, Room 030
150 Marshall Street
Syracuse, New York 13210
Telephone: (315) 423-3640

Educational technology and library and information science at all levels. Instructional design, development, and evaluation are the emphases within educational technology, along with the media of educational communication: computers and microcomputers, telecommunications (cable, broadcast, satellite), audio and video recordings, film and other audiovisual materials, as they pertain to teaching and learning. Within library and information science the focus is on the operation and management of information services for education-related organizations. All aspects of information technology related to education are considered within the scope.

ERIC Clearinghouse for Junior Colleges (JC)

University of California at Los Angeles (UCLA)
Mathematical Sciences Building, Room 8118
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of two-year public and private community and junior colleges, technical institutes, and two-year branch university campuses. Two-year college students, faculty, staff, curricula, programs, support services, libraries, and community services. Linkages between two-year colleges and business/industrial organizations. Articulation of two-year colleges with secondary and four-year postsecondary institutions.

ERIC Clearinghouse on Languages and Linguistics (FL)
Center for Applied Linguistics
1118 22nd Street, N.W.
Washington, D.C. 20037
Telephone: (202) 429-9551

Languages and language sciences; theoretical and applied linguistics; all areas of foreign language, second language, and linguistics instruction; pedagogy, or methodology; psycholinguistics and the psychology of language learning; cultural and intercultural context of languages; application of linguistics in language teaching; bilingualism and bilingual education; sociolinguistics; study abroad and international exchanges; teacher training and qualifications specific to the teaching of foreign languages and second languages; commonly and uncommonly taught languages, including English as a second language; related curriculum developments and problems.

ERIC Clearinghouse on Reading and Communication Skills (CS)
National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills (verbal and nonverbal), pre-school through college; educational research and instruction development in reading, writing, speaking, and listening; identification, diagnosis, and remediation of reading problems; speech communication (including forensics), mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching; instructional materials, curricula, tests/measurement, and methodology at all levels of reading; the role of libraries and other agencies in fostering and guiding reading; diagnostics and remedial reading services in schools and clinical settings. Preparation of reading teachers and specialists.

ERIC Clearinghouse on Rural Education and Small Schools (RC)
New Mexico State University
Computer Center (Room 218), Stewart Street
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Economic, cultural, social, or other factors related to educational programs and practices for rural residents; American Indians/Alaska Natives, Mexican Americans, and migrants; educational practices and programs in all small schools; outdoor education.

ERIC Clearinghouse for Science, Mathematics, and Environmental Education (SE)
Ohio State University
1200 Chambers Road, Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

Science, mathematics, and environmental education at all levels, and within these three broad subject areas, the following topics: development of curriculum and instructional materials; teachers and teacher education; learning theory/outcomes (including the impact of parameters such as interest level, intelligence, values, and concept development upon learning in these fields); educational programs; research and evaluative studies; media applications; computer applications.

ERIC Clearinghouse for Social Studies/Social Science Education (SO)
Indiana University
Social Studies Development Center
2805 East 10th Street
Bloomington, Indiana 47405
Telephone: (812) 335-3838

All levels of social studies and social science education; content of the social science disciplines; applications of theory and research to social science education; contributions of social science disciplines (anthropology, economics, geography, history, sociology, social psychology, political science); education as a social science; comparative education (K-12); content and curriculum materials on "social" topics such as law-related education, ethnic studies, bias and discrimination, aging, adoption, women's equity, and sex education.

ERIC Clearinghouse on Teacher Education (SP)
American Association of Colleges for Teacher Education
One Dupont Circle, N.W., Suite 610
Washington, D.C. 20036
Telephone: (202) 293-2450

School personnel at all levels; teacher selection and training, preservice and inservice preparation, and retirement; the theory, philosophy, and practice of teaching; curricula and general education not specifically covered by other clearinghouses; all aspects of physical education, health education, and recreation education.

ERIC Clearinghouse on Tests, Measurement, and Evaluation (TM)
Educational Testing Service
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5176

Tests and other measurement devices; methodology of measurement and evaluation; application of tests, measurement, or evaluation in educational projects or programs; research design and methodology in the area of testing and measurement/evaluation; learning theory in general.

ERIC Clearinghouse on Urban Education (UD)
Teachers College, Columbia University
Institute for Urban and Minority Education
Box 40
525 W. 120th Street
New York, New York 10027
Telephone: (212) 678-3433

Programs and practices in public, parochial, and private schools in urban areas and the education of particular racial/ethnic minority children and youth in various settings — local, national, and international; the theory and practice of educational equity; urban and minority experiences; and urban and minority social institutions and services.

Educational Resources Information Center (Central ERIC)
U.S. Department of Education
Office of Educational Research and Improvement (OERI)
Washington, D.C. 20208
Telephone: (202) 254-5500

ERIC Processing & Reference Facility
ORI, Inc., Information Systems
4833 Rugby Avenue, Suite 301
Bethesda, Maryland 20814
Telephone: (301) 656-9723

ERIC Document Reproduction Service (EDRS)
Computer Microfilm Corporation (CMC)
3900 Wheeler Avenue
Alexandria, Virginia 22304
Telephone: (703) 823-0500; (800) 227-3742

Oryx Press
2214 North Central Avenue at Encanto
Phoenix, Arizona 85004
Telephone: (602) 254-6156; (800) 457-6799

ERIC Fact Sheet *

I. USAGE STATISTICS (ESTIMATED)**

A. Institutions in U.S. Providing Access to ERIC Products	3,269
B. Usages of ERIC Resources (Annually)	2.7 million
C. ERIC Bibliographic Records Retrieved in Searches and Provided to Clients (Annually)	30 million
D. Annual Expenditure by Institutions to Support Distribution of ERIC Resources to Users	\$26 million
E. Total Annual Expenditure for the Development, Distribution, and Use of ERIC Resources in U.S. (only 4.1% provided by the Federal government)	\$136 million

II. ABSTRACT JOURNAL SERVICES

A. Resources in Education (RIE)

1. Subscriptions (primarily libraries)	2,000
2. Documents Announced in RIE	
a. Monthly (Average)	1,200
b. Annually (Current Level)	14,000
c. To date (1966 through December 1985)	253,126
3. Documents Evaluated Annually for Possible Announcement in RIE	35,000

B. Current Index to Journals in Education (CIJE)

1. Subscriptions (primarily libraries)	1,800
2. Journals Covered	760
3. Journals Articles Announced in CIJE	
a. Monthly (Average)	1,500
b. Annually (Current Level)	18,000
c. To date (1969 through December 1985)	323,036

* Many of the statistics reported here are constantly changing and therefore have been rounded rather than made exact as of any one day.

** Source: King Research, Inc. Cost and Usage Study of the Educational Resources Information Center (ERIC) System. Final Report. January 1982. (ED-208 902 and ED-208 903)

III. DOCUMENT REPRODUCTION SERVICES

A. Microfiche Collections

1. Organizations Currently Subscribing to Complete ERIC Microfiche Sets (including approximately 90 foreign) 730
2. Organizations Offering Significant ERIC Microfiche Collections for Public Access 780

B. Titles Filmed (less than 5% of current document input is copyrighted)

1. Monthly (per RIE issue) 1,150
2. Annually 13,500

C. Microfiche Cards Delivered Per Subscriber

1. Monthly (per RIE issue) 1,600
2. Annually 19,500

D. Sales (from ERIC Document Reproduction Service (EDRS))

1. Microfiche Sold on Subscription (Annually) 16,000,000
2. On Demand Document Orders Processed Annually (MF and PC) 50,000

IV. DATABASE SEARCHING SERVICES

- #### A. Subscriptions to ERIC Magnetic Tapes (via ERIC Facility) (including 10 foreign and all major online vendors) 30

- #### B. Locations Offering Computer Searches of ERIC Files (estimated) 700

V. REFERENCE SERVICES (NON-COMPUTERIZED)

A. Inquiries/Questions Answered Annually

1. ERIC Facility 4,000
2. Clearinghouses (16) 100,000

VI. MISCELLANEOUS STATISTICS

- #### A. Database Size (RIE and CIJE) through December 1985 576,162

B. Thesaurus Descriptors (as of 10th Edition, 1984)

1. Main (Indexable) Terms 5,086
2. Synonyms 3,856
3. "Dead" terms (valid at one time, but no longer) 134
4. Total Terms 9,076

- #### C. Identifiers (as of Identifier Authority List, December 1985) 36,750

- #### D. Information Analysis Products (IAPs) Produced by ERIC Clearinghouses (1967-1984) 4,275

- #### E. Organizations/Institutions Represented by Documents in the ERIC Database (Source Directory) 27,600